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Date: January 29, 2007 /Casey L. Martin/
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:			
Appellant(s):	Alistair Hamilton, *et al.*	Examiner:	Alexis Asiedua Boateng
Serial No:	10/733,221	Art Unit:	2838
Filing Date:	December 11, 2003		

Title: OPPORTUNISTIC POWER SUPPLY CHARGE SYSTEM FOR PORTABLE UNIT

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
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REPLY BRIEF

Dear Sir:

Appellants' representative submits this brief in reply to the Examiner's Answer in the above-identified patent application.

I. Rejection of Claims 1, 9, 11-14, 17-19, 27 and 29 Under 35 U.S.C. §102(e)

Claims 1, 9, 11-14, 17-19, 27 and 29 stand rejected under 35 U.S.C. §102(e) as being anticipated by Cheng *et al.* (U.S. 2003/0210106). Appellants' representative respectfully requests that this rejection be reversed for at least the following reasons. Cheng *et al.* fails to teach or suggest each and every aspect of the subject claims.

> A single prior art reference anticipates a patent claim only if it expressly or inherently describes ***each and every limitation set forth in the patent claim***. *Trintec Industries, Inc. v. Top-U.S.A. Corp.,* 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California,* 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The ***identical invention must be shown in as complete detail as is contained in the ... claim***. *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

i. Claims 1 and 19 (and corresponding dependent claims)

The Examiner's Answer repeats the contentions made in the Final Rejection and submits new contentions in connection with the Appeal Brief. Therefore, the arguments of the previously-submitted Appeal Brief are maintained herewith and the subject Reply Brief only specifically responds to the newly-presented contentions.

Appellants' subject application relates generally to a charging system for energy storage components of portable units. More specifically, independent claims 1 and 19 recite similar limitations, namely ***a controller that determines a first charging time for a portable computing device and allocates a second charging time to the portable computing device***. Cheng *et al.* is silent with regard to such novel features.

Cheng *et al.* relates to a system and method for transferring power to devices in a contact-less fashion. In attempting to show that Cheng *et al.* does in fact disclose the aforementioned claimed aspects, the Examiner's Answer cites paragraph [0209] for disclosing a control unit that controls the driving unit, which drives the magnetic unit, consisting of two coils that are independently driven to provide power to the device unit. It is further contended that paragraphs [0163] and [0209] disclose that the coils are

independently driven, whereupon the Examiner's Answer concludes that this shows that the charging is allocated at different times. The fact is, no such thing is disclosed or suggested by these citations. To wit, paragraph [0163] states:

> To enable this, it is possible to have two coils, for example one positioned on top of the other or one woven into or otherwise associated with the other, the second coil capable of generating a net current flow substantially perpendicular to the direction of the first coil at any point in the active area of the primary unit. ***These two coils may be driven alternately such that each is activated for a certain period of time***. (Emphasis added.)

It is clear that is paragraph merely discloses a cycle of alternate activation of each of two coils for a time period. The purpose of this cycle is more clearly specified in paragraph [0209] which states that:

> In this embodiment, the magnetic unit consists of two independently driven components, coil 1 and coil 2, arranged such that the conductors in the active area of coil 1 would be perpendicular to the conductors in the active area of coil 2. When the primary unit is activated, the control unit causes a 90-degree phase shift between the alternating current that flows through coil 1 and coil 2. This creates a rotating magnetic dipole on the surface of the primary magnetic unit 700 ***such that a secondary device would be able to receive power regardless of its rotational orientation*** (See FIGS. 9a-9c). (Emphasis added.)

It is therefore readily apparent that the configuration and the activation cycle of Cheng *et al.* is established in order to create a desired magnetic field geometry to enable a secondary device to receive a charge from any orientational position, not to implement charging at different times. One would need to go well beyond the clear disclosure of this reference in order to arrive at such a conclusion. In response to Appellant's argument that Cheng *et al.'s* control unit fails to control the charging time of secondary devices within the system, and that the control unit simply determines whether additional components (*e.g.,* capacitors) need to be added to the circuitry to maintain a level of resonance, the Examiner's Answer contends that "the controller not only determines

which additional components need to be added, but also controls the charging of the coils to charge the devices," again relying on paragraph [0209]. As in the aforementioned case, this is simply not disclosed or suggested in the reference. The passage at issue states:

> In this embodiment, the secondary devices are of a standard size and a maximum of six standard-sized devices can receive power from the primary unit simultaneously. Due to the standard-sizes of the secondary devices, the change in inductance due to the change in secondary devices in proximity is quantized to a number of predefined levels such that only a maximum of 6 capacitances is required to keep the system operating at resonance.

It is readily apparent that this passage merely discloses that a plurality of devices can be charged simultaneously. Cheng *et al.* is silent as to charging times of these devices. In response to Appellant's argument that the reference fails to disclose either *determining* or *allocating charging times,* the Examiner's Answer contends that, since the coils are independently activated, and since each device has its own charging time, therefore different charging times are allocated. In this manner, it appears that the Examiner's Answer is making an inherency argument. However, this is also a mistaken contention since claim 1 plainly recites that it is the *controller* that determines a first charging time and it is the also the controller that allocates a second charging time to the portable computing device. In Cheng *et al.*, charging would simply occur naturally as a function of the number of secondary devices within a magnetic field, and there would be no *controller* function, nor would there be any *allocation* of charging times. Therefore, the claimed aspects would not be inherent in Cheng *et al.* as suggested in the Examiner's Answer. Accordingly, this rejection should be reversed.

ii. Claims 9 and 29 (and corresponding dependent claims)

Independent claims 9 and 29 recite similar limitations, namely ***allocating a charge time to charge a rechargeable power supply of the portable unit***. Cheng *et al.* is silent with regard to such novel aspects of the claimed invention. The Examiner's Answer simply relies on the same contentions and cites the same paragraphs from the

reference as those mentioned *supra* in connection with independent claims 1 and 19. Therefore, the rejection of independent claims 9 and 29 is taken to stand or fall on the basis of the aforementioned rejection. It has been demonstrated *supra* that the reference fails to disclose the claimed aspects. For at least these reasons, it remains readily apparent that Cheng *et al.* is silent with regard to ***allocating a charge time to charge a rechargeable power supply of the portable unit.***

In view of at least the foregoing, it is evident that Cheng *et al.* does not teach or suggest each and every aspect of independent claims 1, 9, 19, and 29 (and claims which depend there from). Therefore, it is respectfully requested that this rejection be reversed.

II. Rejection of Claim 6 Under 35 U.S.C. §103(a)

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Kaite *et al.* (U.S. 6,016,046). Reversal of this rejection is requested for at least the following reasons. Claim 6 depends from independent claim 1. As discussed *supra,* Cheng *et al.* does not teach or suggest all limitations of claim 1. In addition, Kaite *et al.* relates to a battery pack containing rechargeable batteries and a charger device associated therewith. However, Kaite *et al.* does not make up for the aforementioned deficiencies of Cheng *et al.* The Examiner's Answer does not offer new contentions against this rejection but rather relies on the rejection of the independent claims. Therefore, for at least the aforementioned reasons, this rejection should be reversed.

III. Rejection of Claim 2 Under 35 U.S.C. §103(a)

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Kaite *et al.,* further in view of Ishii *et al.* (U.S. 5,070,293). It is respectfully requested that this rejection be reversed for at least the following reasons. As discussed *supra*, Cheng *et al.* does not teach or suggest each and every aspect of independent claim 1 (and therefore claim 2, which depends there from), and Kaite *et al.* fails to make up for the deficiencies of Cheng *et al.* Ishii *et al.* relates to a device that transmits electrical energy from one coil to another coil using an inductive coupling. However, Ishii *et al.* does not make up for the deficiencies of Cheng *et al.* and Kaite *et al.*

The Examiner's Answer relies on the rejection of the independent claims and does not offer new contentions against this rejection. Based on at least the foregoing, this rejection should be reversed.

IV. Rejection of Claim 3 Under 35 U.S.C. §103(a)

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Kaite *et al.,* further in view of Burton *et al.* (U.S. 6,917,182). This rejection should be reversed for at least the following reasons. Cheng *et al.* does not teach or suggest all limitations of independent claim 1 (and claim 3 that depends there from), and Kaite *et al.* and Burton *et al.* fail to make up for these deficiencies. As discussed *supra*, Kaite *et al.* does not cure the deficiencies of Cheng *et al.* Furthermore, Burton *et al.* relates to a charging system that controls the charging of a device by varying the current supplied to the inductive coils of the charging system. As such, the reference does not make up for the deficiencies of the base combination. For at least the aforementioned reasons and since the Examiner's Answer relies on the rejection of the independent claims without offering new contentions, this rejection should be reversed.

V. Rejection of Claims 4, 8 and 26 Under 35 U.S.C. §103(a)

Claims 4, 8 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Kaite *et al.*, further in view of Kodama (U.S. 5,805,998). It is respectfully requested that this rejection be reversed for at least the following reasons. Cheng *et al.* does not teach or suggest each and every aspect of independent claims 1 and 19 (and claims 4, 8, and 26, which respectively depend there from), and Kaite *et al.* and Kodama fail to compensate for such deficiencies. As discussed previously, Kaite *et al.* does not cure the deficiencies of Cheng *et al.*, and Kodama relates to a cordless telephone system and amplifying a voice signal transmitted between a telephone line and radio transceiver. As such, Kodama does not cure the deficiencies of Cheng *et al.* and Kaite *et al.* For these reasons and since the Examiner's Answer does not offer new contentions relying instead on the rejection of the independent claims, this rejection should therefore be reversed and the subject claims allowed.

VI. Rejection of Claim 10 Under 35 U.S.C. §103(a)

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Goto (U.S. 5,600,225). This rejection should be reversed for at least the following reasons. As discussed *supra*, Cheng *et al.* does not teach or suggest each and every aspect of independent claim 9 (and claim 10, which depends there from), and Goto fails to make up for the aforementioned deficiencies. Goto relates to recharging a battery without directly contacting the battery and generating a halting signal to halt the supply of AC power to a primary coil of the system. However, Goto does not make up for the aforementioned deficiencies of Cheng *et al.* The Examiner's Answer relies on the rejection of the independent claims without new contentions, and accordingly, this rejection should be reversed.

VII. Rejection of Claims 15, 16 and 22 Under 35 U.S.C. §103(a)

Claims 15, 16 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Lew *et al.* (U.S. 6,608,464). This rejection should be reversed for at least the following reasons. Cheng *et al.* does not teach or suggest all limitations of independent claims 9 and 19 (and claims 15, 16, and 22, which depend there from, respectively). Lew *et al.* relates to solar cells laminated onto a substrate that functions as a power source. However, Lew *et al.* does not make up for the deficiencies of Cheng *et al.* Since no new contentions have been offered in the Examiner's Answer, this rejection should also be reversed.

VIII. Rejection of Claim 20 Under 35 U.S.C. §103(a)

Claim 20 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Fernandez *et al.* (U.S. 6,184,651). It is respectfully requested that this rejection be reversed for at least the following reasons. As discussed *supra*, Cheng *et al.* does not teach or suggest each and every aspect of independent claim 19 (and claim 20, which depends there from). Fernandez *et al.* relates to a contactless charging system with a controller having a wireless communication link. However, Fernandez *et al.* does not make up for the aforementioned deficiencies. For the aforementioned reasons, and

since the Examiner's Answer relies on the rejection of the independent claims without new contentions, this rejection should therefore be reversed.

IX. Rejection of Claims 21 and 23 Under 35 U.S.C. §103(a)

Claims 21 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Kaite *et al.* This rejection should be reversed for at least the following reasons. Cheng *et al.* does not teach each and every aspect of independent claim 19 (and thus claims 21 and 23, which depend there from), and Kaite *et al.* does not make up for such deficiencies. As discussed *supra*, Kaite *et al.* relates to a charger device that charges a battery pack of rechargeable batteries without physically contacting the battery pack. The reference therefore does not make up for the deficiencies of Cheng *et al.* Since the Examiner's Answer does not offer new contention, relying instead on the rejection of the independent claims, and for the other aforementioned reasons, this rejection should also be reversed.

X. Rejection of Claim 25 Under 35 U.S.C. §103(a)

Claim 25 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Lappi *et al.* (U.S. 6,114,832). It is respectfully requested that this rejection be reversed for at least the following reasons. Cheng *et al.* does not teach or suggest all the limitations of independent claim 19 (and therefore claim 25, which depends there from), and Lappi *et al.* fails to make up for these deficiencies. Lappi *et al.* relates to a charging system for a heart rate measurement system. However, Lappi *et al.* does not resolve the deficiencies of Cheng *et al.* Since no new contentions are offered in the Examiner's Answer, and for at least the other aforementioned reasons, this rejection should be reversed.

XI. Rejection of Claim 28 Under 35 U.S.C. §103(a)

Claim 28 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng *et al.* in view of Lappi *et al.* as applied to claim 25 above and in further view of Utsunomiya *et al.* (U.S. 6,327,127). This rejection should be reversed for at least the following reasons. Cheng *et al.* does not teach or suggest each and every aspect of

independent claim 19 (and therefore claim 28, which depends there from), and Lappi *et al.* and Utsunomiya *et al.* do not make up for the deficiencies of Cheng *et al.* As discussed *supra*, Cheng *et al.* and Lappi *et al.* do not teach or suggest all aspects of the subject claims, and Utsunomiya *et al.*, which relates to maintaining a specified voltage level, does not compensate for the aforementioned deficiencies. The Examiner's Answer relies on the rejection of the independent claims without offering new contentions against this rejection. Therefore, for this and the other reasons stated *supra*, this rejection should also be reversed.

CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 1-4, 6, 8-23, 25-29 be reversed.

In the event any fees may be due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [SYMBP167US].

Respectfully submitted,
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